09/488,865

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     FILE 'USPATFULL' ENTERED AT 10:01:16 ON 03 SEP 2002
L2          4432 S DETERMIN### AND (ADDRESS## (5A) FAIL####)
L3           178 S DETERMIN### AND (PHYSICAL LOCATION# (P) FAILURE#)
L5        506923 S DISPLACE##### OR MIRROR FACTOR#
L6          6412 S ADDRESS## (P) L5
L7           572 S DISPLAC### AND (INFORMATION (P) LOOK UP TABLE#)
L8            40 S REPEATABLE UNIT#
L9            20 S L2 (P) L3
L10            1 S L9 AND L5
L11            1 S L6 AND L10
L12            7 S L8 AND (L2 OR L3 OR L5 OR L6 OR L7)
L13        26307 S LOOK UP TABLE#
L14         8846 S BUFFER COORDINAT### OR BUFFER CONTENT# OR PHYSICAL ADDRESS##
L15          570 S L13 AND L14
L16           86 S ELECTRICAL ADDRESS##
L17         7708 S PHYSICAL ADDRESS##
L18         6998 S 16 AND L17
L19          450 S L18 AND L15
L20           55 S L19 AND L6
L21            1 S L20 AND (L2 OR L3)
                 SAVE PHUNG/L ALL

=> d l21 ibib ti


L21  ANSWER 1 OF 1  USPATFULL
ACCESSION NUMBER:         94:21036  USPATFULL
TITLE:                    Selective dump method and apparatus
INVENTOR(S):              Shingai, Randall K., San Jose, CA, United States
PATENT ASSIGNEE(S):       Tandem Computers Incorporated, Cupertino, CA, United
                          States (U.S. corporation)

                                NUMBER         KIND    DATE
                          ---------------------- ------ --------
PATENT INFORMATION:       US 5293612             19940308
APPLICATION INFO.:        US 1992-870735         19920416  (7)
RELATED APPLN. INFO.:     Continuation of Ser. No. US 1989-350674, filed on 11
                          May 1989, now abandoned
DOCUMENT TYPE:            Utility
FILE SEGMENT:             Granted
PRIMARY EXAMINER:         Dixon, Joseph L.
ASSISTANT EXAMINER:       Elmore, Reba I.
LEGAL REPRESENTATIVE:     Townsend and Townsend
NUMBER OF CLAIMS:         2
EXEMPLARY CLAIM:          1
NUMBER OF DRAWINGS:       4 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT:               541
TI     Selective dump method and apparatus


=> d l10 ibib ti


L10  ANSWER 1 OF 1  USPATFULL
ACCESSION NUMBER:         96:27965  USPATFULL
TITLE:                    Highly available fault tolerant relocation of storage
                          with atomicity
INVENTOR(S):              Baird, Robert, San Jose, CA, United States
                          Bozman, Gerald P., Oakland, NJ, United States
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Eisenberger, George, White Plains, NY, United States
Kamerman, Albert, Pound Ridge, NY, United States
Lett, Alexander S., Mahopac, NY, United States
McAssey, John J., Monroe, NY, United States
Myers, James J., San Francisco, CA, United States
Tetzlaff, William H., Mount Kisco, CA, United States
Wang, Pong-sheng, San Jose, CA, United States

PATENT ASSIGNEE(S): International Business Machines, Armonk, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5504857		19960402
APPLICATION INFO.:	US 1993-26278		19930304 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1990-535083, filed on 8 Jun 1990, now abandoned

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Beausoliel, Jr., Robert W.
ASSISTANT EXAMINER: Snyder, Glenn
LEGAL REPRESENTATIVE: Brodie, R. Bruce
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 529
TI Highly available fault tolerant relocation of storage with atomicity

=> d l11 ibib ti

L11 ANSWER 1 OF 1 USPATFULL
ACCESSION NUMBER: 96:27965 USPATFULL
TITLE: Highly available fault tolerant relocation of storage with atomicity
INVENTOR(S): Baird, Robert, San Jose, CA, United States
Bozman, Gerald P., Oakland, NJ, United States
Eisenberger, George, White Plains, NY, United States
Kamerman, Albert, Pound Ridge, NY, United States
Lett, Alexander S., Mahopac, NY, United States
McAssey, John J., Monroe, NY, United States
Myers, James J., San Francisco, CA, United States
Tetzlaff, William H., Mount Kisco, CA, United States
Wang, Pong-sheng, San Jose, CA, United States
PATENT ASSIGNEE(S): International Business Machines, Armonk, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5504857		19960402
APPLICATION INFO.:	US 1993-26278		19930304 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1990-535083, filed on 8 Jun 1990, now abandoned

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Beausoliel, Jr., Robert W.
ASSISTANT EXAMINER: Snyder, Glenn
LEGAL REPRESENTATIVE: Brodie, R. Bruce
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 529
TI Highly available fault tolerant relocation of storage with atomicity

=> d l12 ibib ti 1-7

L12 ANSWER 1 OF 7 USPATFULL
ACCESSION NUMBER: 2001:143740 USPATFULL
TITLE: Programmable RISC-DSP architecture
INVENTOR(S): Arbel, Ygal, Belmont, CA, United States
PATENT ASSIGNEE(S): National Semiconductor Corporation, Santa Clara, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6282631	B1	20010828	
APPLICATION INFO.:	US 1998-220158		19981223	(9)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Donaghue, Larry D.
LEGAL REPRESENTATIVE: Skjerven Morrill MacPherson LLP., Kwok, Edward C., Marino, Fabio E.
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 27 Drawing Figure(s); 18 Drawing Page(s)
LINE COUNT: 2697
TI Programmable RISC-DSP architecture

L12 ANSWER 2 OF 7 USPATFULL
ACCESSION NUMBER: 2001:137715 USPATFULL
TITLE: Adaptive electronic transmission control system and strategy for nonsynchronous automatic transmission
INVENTOR(S): Jain, Pramod K., Farmington Hills, MI, United States
Kuhn, Howard Cecil, Farmington Hills, MI, United States
Vodicka, Ronald James, West Bloomfield, MI, United States
PATENT ASSIGNEE(S): Ford Global Technologies, Inc., Dearborn, MI, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6278926	B1	20010821	
APPLICATION INFO.:	US 2000-665353		20000918	(9)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Cuchlinski, Jr., William A.
ASSISTANT EXAMINER: To, Tuan C
LEGAL REPRESENTATIVE: McKenzie, Frank G.
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 21 Drawing Figure(s); 13 Drawing Page(s)
LINE COUNT: 1238
TI Adaptive electronic transmission control system and strategy for nonsynchronous automatic transmission

L12 ANSWER 3 OF 7 USPATFULL
ACCESSION NUMBER: 1999:127246 USPATFULL
TITLE: Pre-loaded elastomeric accumulator for hydraulic system
INVENTOR(S): Agnew, David L., Clarkson, MI, United States
PATENT ASSIGNEE(S): ITT Manufacturing Enterprises, Inc., Wilmington, DE, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5967623		19991019	
APPLICATION INFO.:	US 1997-876002		19970613	(8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Butler, Douglas C.
LEGAL REPRESENTATIVE: Rader, Fishman & Grauer PLLC
NUMBER OF CLAIMS: 11
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 13 Drawing Figure(s); 6 Drawing Page(s)
LINE COUNT: 489
TI Pre-loaded elastomeric accumulator for hydraulic system

L12 ANSWER 4 OF 7 USPATFULL
ACCESSION NUMBER: 92:2081 USPATFULL
TITLE: Method and apparatus for quantitatively evaluating roll hardness
INVENTOR(S): Adams, Richard J., Rockton, IL, United States
Baum, Scott A., Rockton, IL, United States
Roisum, David R., Neenah, WI, United States
Oliver, William K., Rockton, IL, United States
PATENT ASSIGNEE(S): Beloit Corporation, Beloit, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5079728		19920107	
APPLICATION INFO.:	US 1990-472780		19900131	(7)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Black, Thomas G.
ASSISTANT EXAMINER: Ramirez, Ellis B.
LEGAL REPRESENTATIVE: Leydig, Voit & Mayer
NUMBER OF CLAIMS: 17
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 756
TI Method and apparatus for quantitatively evaluating roll hardness

L12 ANSWER 5 OF 7 USPATFULL
ACCESSION NUMBER: 89:42670 USPATFULL
TITLE: Perceived contrast of liquid crystal displays
INVENTOR(S): Demke, Kent R., Colorado Springs, CO, United States
Lubart, Neil D., Austin, TX, United States
PATENT ASSIGNEE(S): International Business Machines Corporation, Armonk, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4834506		19890530	
APPLICATION INFO.:	US 1987-69675		19870702	(7)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Miller, Stanley D.
ASSISTANT EXAMINER: Mai, Huy Kim
LEGAL REPRESENTATIVE: Bryant, Andrea P.
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 369
TI Perceived contrast of liquid crystal displays

L12 ANSWER 6 OF 7 USPATFULL
ACCESSION NUMBER: 83:57873 USPATFULL
TITLE: Method and apparatus for producing a half-tone reproduction
INVENTOR(S): Hammes, Philippe, Massy, France
PATENT ASSIGNEE(S): Crosfield Electronics Limited, London, England

(non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4419690		19831206	
APPLICATION INFO.:	US 1981-296670		19810827	(6)

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1980-28176	19800901

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Masinick, Michael A.
LEGAL REPRESENTATIVE: Sughrue, Mion, Zinn, Macpeak and Seas
NUMBER OF CLAIMS: 24
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 30 Drawing Figure(s); 17 Drawing Page(s)
LINE COUNT: 992
TI Method and apparatus for producing a half-tone reproduction

L12 ANSWER 7 OF 7 USPATFULL
ACCESSION NUMBER: 72:48854 USPATFULL
TITLE: METHOD OF AND APPARATUS FOR PHOTOPRINTING CONDUCTOR PATTERNS ON THE CURVED SURFACES OF TRANSDUCERS
INVENTOR(S): Malsky, Herbert, Belmont, MA, United States
PATENT ASSIGNEE(S): Massachusetts Institute of Technology, Cambridge, MA, United States (2)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 3694080		19720926	
APPLICATION INFO.:	US 1970-17691		19700309	(5)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Matthews, Samuel S.
ASSISTANT EXAMINER: Adams, Russell E.
LEGAL REPRESENTATIVE: Cooch; Thomas, Smith, Jr.; Arthur A., Santa; Martin M.
NUMBER OF CLAIMS: 7
NUMBER OF DRAWINGS: 5 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 331
TI METHOD OF AND APPARATUS FOR PHOTOPRINTING CONDUCTOR PATTERNS ON THE CURVED SURFACES OF TRANSDUCERS

=> d l21 kwic

L21 ANSWER 1 OF 1 USPATFULL
SUMM . . . a computer. By knowing the contents of the memory locations, registers, and the like, the analyst can, in most cases, **determine** the source of the error or pathologic condition. This enables the analyst to **determine** what, if any, alterations to the software and/or hardware need to be undertaken to prevent or reduce the recurrence of. . .
DRWD FIG. 1 is a schematic depiction of a translation from a virtual address to a **physical address** using either a page table of a TLB;
DETD Referring to FIG. 1, in a typical virtual memory system, a virtual **address** 10 includes a first portion 11, which indicates a virtual page **address**, and a **displacement** or offset portion 12 which specifies the **address** of a byte within the virtual page. The virtual page **address** is translated into a physical page **address** using a **look-up table** 13. For example, one or more page table entries (PTE) can be provided which contain a plurality of words, each having a virtual page **address** 14a-14f as an index portion, and a corresponding

physical page address 15a-15f concatenated thereto. When using the page table the virtual page address portion 11 of the requested virtual address 10 is matched with the index portion 14a-14f of an entry in the page table. The corresponding physical page address 15a-15f is then used, such as by combining the physical page address 15a-15f with the displacement portion 12 of the virtual address to provide the required physical byte address 16.

DETD When a virtual-to-physical translation is needed, the TLB 17 is accessed to determine whether the required translation can be obtained from this fast memory portion. If the required page is not in the. . .

DETD . . . written to storage locations in the TLB. These addresses are encoded in that the TLB contains an indication of the physical address, coupled to an indication of the virtual address. "Encoding" includes the trivial case in which the "encoded" address is the. . .

DETD In one preferred embodiment, there are 16 pages of TLB. The tape dump proceeds by first dumping the first half of the TLB and then the second. . . . page entry in the TLB is the "absent" bit. When the computer system is first powered-up (or after a power failure), the physical address portions of the TLB are 0-filled and the absent bit for those portions is set. As pages are referenced, entries. . . . corresponding absent bits are reset. Normally, then, the absent bit will be set only for those entries which have the physical address portion 0-filled (except for the set absent bit). There are certain situations, however, in which the absent bit is set, and yet there is useful data in the physical address portion of the corresponding TLB entry. One such example occurs when there has been a page fault. Following a page. . . . a case, the tape dump microcode is configured to dump an entry which has the "absent" bit set, provided the physical address portion of the entry is not 0-filled.

DETD . . . possible. Such updating is possible because the "absenting" of a TLB entry only invalidates the portions that relate to a physical address. The portion of the TLB entry that contains an indication of a virtual address is not invalidated when a TLB. . . . use, its underlying Page Table Entry can be inspected. If the underlying PTE contains a valid physical page number, the physical address portion of the TLB entry can be updated with that physical page number. In cases where actually-absent pages cannot be updated, physical page 0 (i.e., the page whose physical address is 0, containing system information) will be substituted for the absent page. In this context, physical page 0 acts as. . .

DETD . . . first half of PTC are dumped 80. The dumping is accomplished by referring to each entry in the TLB, and determining the corresponding physical address for each entry. When that physical address is determined, the contents of memory at that physical address are sent to the tape drive 48 along communication line 52, and are recorded on the tape drive 48.

DETD . . . table (SPT) 96. Typically, page 0 of physical memory will first be dumped. Physical page 0 is the page having physical address 0. It contains certain system information, including an identification of the processor type and the physical memory size. By dumping page 0, the processor type 32 can be determined. This is important in computers having a heterogeneous multiprocessor configuration in which not all of the multiple processors are of. . .

=> d l10 kwic

L10 ANSWER 1 OF 1 USPATFULL
SUMM . . . a hierarchical order on a collection of items. The tree organization is frequently used to define page directories and to **determine** access rights and privileges. Structurally, a tree is a type of graph. That is, tree comprises a collection of nodes. . .
SUMM . . . to the method of this invention, maintenance of data in a consistent state even in the presence of a single **failure** involves atomically shadow copying and amending directories onto a **failure** independent medium other than that used for the original page. The copying and amending is invoked for each referenced page. . . pages without having to necessarily change the physical or absolute location of the pages in real storage. Conversely, changing the **physical location** of one or more pages would not invalidate the logical addresses expressed by applications running on the CPU.
SUMM . . . or page group availability to CPU executing applications. This is accomplished by (a) creating each new page at an absolute **address** on a first **failure** independent storage device and recording the path thereto as two levels of indirection in a directory , and (b) responsive. . .
DETD The storing and accessing of a group of related pages, where the absolute address comprises an initial reference (device address)+ **displacement** (Offset) reduces directory and concordance size. However, the SD could also be formed on a page level. This would require. . .
DETD . . . the absolute address of DASD 1 Offset 3. The shadow copy RP3300 of the pages RP1-RP100 is located on a **failure** independent medium at the absolute **address** of DASD 17 Offset 2788.
CLM What is claimed is:
. . . first logical address and counterpart second logical address for the page or group, and writing the page at the absolute **address** on a first **failure** independent device in the storage subsystem; and (b) responsive either to each write update or to each interrupt in establishing. . . said counterpart address in said first logical address space from its current addresses in the second logical address and absolute **address** spaces to another **failure** independent device in the storage subsystem at new addresses in the second logical and absolute address spaces, and, atomically updating.

=> d l11 kwic

L11 ANSWER 1 OF 1 USPATFULL
SUMM . . . a hierarchical order on a collection of items. The tree organization is frequently used to define page directories and to **determine** access rights and privileges. Structurally, a tree is a type of graph. That is, tree comprises a collection of nodes. . .
SUMM . . . to the method of this invention, maintenance of data in a consistent state even in the presence of a single **failure** involves atomically shadow copying and amending directories onto a **failure** independent medium other than that used for the original page. The copying and amending is invoked for each referenced page. . . pages without having to necessarily change the physical or absolute location of the pages in real storage. Conversely, changing the **physical location** of one or more pages would not invalidate the logical addresses expressed by applications running on the CPU.
SUMM . . . or page group availability to CPU executing applications. This is accomplished by (a) creating each new page at an absolute **address** on a first **failure** independent storage device

and recording the path thereto as two levels of indirection in a directory , a[redacted](b) responsive. . .

DETD The storing and accessing of a group of related pages, where the absolute **address** comprises an initial reference (device **address)+displacement** (Offset) reduces directory and concordance size. However, the SD could also be formed on a page level. This would require a logical **address** and an absolute **address** for each primary copy of a page and another logical and absolute **address** pair (tuple) for each shadow page.

DETD . . . the absolute address of DASD 1 Offset 3. The shadow copy RP3300 of the pages RP1-RP100 is located on a **failure** independent medium at the absolute **address** of DASD 17 Offset 2788.

CLM What is claimed is:

. . . first logical address and counterpart second logical address for the page or group, and writing the page at the absolute **address** on a first **failure** independent device in the storage subsystem; and (b) responsive either to each write update or to each interrupt in establishing. . . said counterpart address in said first logical address space from its current addresses in the second logical address and absolute **address** spaces to another **failure** independent device in the storage subsystem at new addresses in the second logical and absolute address spaces, and, atomically updating.

=> d l12 kwic 1-7

L12 ANSWER 1 OF 7 USPATFULL

DETD . . . (A block is 192

	IEC-958 frames, representing 32 msec of time, and containing a single AC-3 frame of compressed data.)	IEC-958 frames, which is the smallest **repeatable unit** of the SPDIF format.)
MPEG SPDIF		
Layer 1	3,072 bytes	1536 bytes
Layer 2	9,216 bytes	1536. . .

DETD addr: a 12-bit signed value, **address displacement** relative to the current PC in the `e` cycle.

DETD 2. the addr field is a **displacement** relative to the current PC in the `e` cycle, which is PC+2 relative to the PC that points to the. . .

DETD addr: a 12-bit signed value, **address displacement** relative to the current PC in the `e` cycle.

DETD 2. the addr field is a **displacement** relative to the current PC in the `e` cycle, which is PC+2 relative to the PC that points to the. . .

L12 ANSWER 2 OF 7 USPATFULL

DETD . . . pressure control 178 distributes a signal pressure to the main oil pressure regulator 180, which regulates the pressure of fixed **displacement** pump 182 for the transmission 124. Regulated pressure is distributed to line pressure passage 184, which communicates with an intermediate. . .

DETD . . . phase of the shift. This adaptive control provides consistent shift quality throughout the life of the transmission by compensating for **repeatable unit**-to-unit system variations, such as a change in the coefficient of friction of the friction elements, spring loads, slow varying parameters. . .

L12 ANSWER 3 OF 7 USPATFULL
SUMM . . . of the elastomeric member upon positioning in its as-installed position. This arrangement has the advantage of providing simple, accurate and **repeatable** (**unit** to unit) pre-loading of the elastomeric member.
DETD . . . 88 formed in bore 70 proximate the opening thereof. Snap ring 86 limits the downward (as viewed in FIG. 7) **displacement** of closure member 78. A spring 90 compressively simultaneously urges piston 72 upwardly and closure member 78 downwardly from their. . .

L12 ANSWER 4 OF 7 USPATFULL
DETD . . . direction generally indicated by the double-headed arrow 67. A spring mechanism 68 loads the modified head 36a to a position **displaced** from the roll by compression of the spring; release of a trigger mechanism 69 serves to release the head 68a. . .
DETD . . . to force impulse or velocity. The manner in which those signals are utilized to provide an output in consistent and **repeatable** **units** will be described in connection with FIGS. 5 and 6. However, before turning to those figures, it will be noted. . .

L12 ANSWER 5 OF 7 USPATFULL
DETD . . . energizing the liquid crystal. The width of the gap or inter-electrode spacing and the geometry of the pel, the smallest **repeatable unit**, may be determined in accordance with the present invention and implemented during manufacture of the electrode by appropriate choice of. . .
CLM What is claimed is:
. . . on a substrate parallel electrodes in two sets of electrodes, for superposition relative to each other at a predetermined angular **displacement**, for defining at each intersection of superimposed electrodes active display elements such that within each set of parallel electrodes, inter-electrode. . .

L12 ANSWER 6 OF 7 USPATFULL
DETD . . . colour separations may occupy successive sections (e.g. 28, 30) of the perimeter of one output drum, they may be relatively **displaced** (as at 30, 32) along the axis of the drum, or they may be arranged on different drums. The original. . .
DETD . . . this system to work, H1 and H2 cannot represent points outside a dot area, the dot area being the smallest **repeatable** **unit** of the dot pattern. Therefore it is necessary for the position computer to detect the crossing of the border by. . .
DETD . . . revolution of the drum. The same is true of the magenta and black surfaces, their section of the drum being **displaced** longitudinally. The exposing heads are contained in an assembly 26 which is movable longitudinally. In this example, one position computer. . .

L12 ANSWER 7 OF 7 USPATFULL
AB Method of and apparatus for positioning and photoprinting with high accuracy a magnetic or electrically conducting pattern of **repeatable units** on the curved surfaces of revolution of a transducer. The curved surface is placed on an indexing mount, and a. . . image of the unit on the photoresist-coated surface. The surface is then rotated relative to the mask through an angular **displacement** corresponding to the desired distance between units of the pattern. The light again impinges through the mask, and another unit is exposed. The process is continued until a full revolution is achieved, and a complete pattern of **repeatable units** is formed. Where the mask is mounted on an indexing mount, the process is as aforementioned, except that the mask. . .

SUMM . . . a printed conductor pattern. The pattern, which may assume any of a variety of configurations, essentially comprises a series of **repeatable units**, each unit, in turn, comprising one or more interconnected conductor lines. Where the device is electromagnetic in nature, one common. . .

SUMM Conventionally, to photoprint a conducting pattern of **repeatable units** on a rotor or stator element, a master pattern including all units is fabricated. Usually, the pattern is inscribed on. . . the pattern is developed and etched. When applied to curved surfaces rather than discs, the negative of the pattern of **repeatable units** is wrapped around the curved surface making intimate contact with it, whereupon it is then exposed. The curved surface itself. . . is coated on the copper. An alternate technique for curved surfaces is to expose, develop and etch the pattern of **repeatable units** on a thin, flat, flexible strip of copper-clad plastic laminate. The strip is then wrapped around and cemented to the. . .

SUMM . . . general object of the invention to provide a method of and apparatus for positioning and photoprinting a predetermined pattern of **repeatable units** on any curved surface of revolution with a high degree of angular accuracy and unit uniformity.

SUMM . . . is another object of the invention to provide a method of and apparatus for positioning and photoprinting conducting patterns of **repeatable units** on a curved surface of revolution with minimum diametrical tolerance errors.

SUMM . . . corresponding to the type of photoresist material. The curved surface is then rotated relative to the mask through an angular **displacement** corresponding to the predetermined pattern, and the light is again directed through the mask onto the surface. The aforementioned process. . .

DETD . . . work or through photography. (However, it may also comprise appropriately shaped and coated quartz or glass.) The shape of the **repeatable unit** to be exposed is outlined on the surface of mask 12 by the appropriate combination of opaque and transparent sections. . .

DETD According to the process, as rotor surface 22 is **displaced** to each successive location via rotation of indexing mount 30, as aforementioned, secondary mask 10 alternates between its first and. . .

DETD . . . only where the particular pattern configuration requires, as in the preferred embodiment, the development of a conducting path between the **repeatable units** of the overall pattern. In this respect, it is obvious that the shape of both the primary and secondary mask. . .

CLM What is claimed is:

. . . said surface; f. means for rotating said primary mask and said curved surface relative to each other through an angular **displacement** corresponding to said

. . . between said light source and said primary mask and moveable relative to said primary mask for printing connections between said **repeatable units**.

. . . and for directing said light through said secondary mask and said primary mask onto said curved surface, thereby exposing said **repeatable unit** onto said surface; h. means for controlling said exposure time for a predetermined time period; i. means for rotating said indexing mount relative to said primary mask through an angular **displacement** corresponding to said predetermined

6. A method of positioning and photoprinting a predetermined conducting pattern of **repeatable units** on the curved surface of

revolution of [redacted] transducer, said surface being [redacted]oated with a film conductor whi[redacted] in turn, . . . unit onto sa[redacted] surface; c. rotating said curved surface and said primary mask relative to each other through an angular **displacement** corresponding to the predetermined pattern; d. repeating said exposing and said rotating through a full revolution, thereby forming a complete pattern of **repeatable units**; and

. . . to prevent the passage of said light through a predetermined section of said primary mask, thereby printing connections between said **repeatable units**.